

EXAMINER 'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Micah D. Stolowitz on 05-28-09.

The application has been amended as follows:

In the claims:

Claims 10, 12 are canceled.

9. (Currently presented) A data network access concentrator comprising:

multiple ingress ports, each of the ingress ports having the capability to support data communication over one or more access sessions associated with the ingress port;

at least one egress port to facilitate packet data communication with a data network;

a plurality of forwarding engines to process packets received by the access concentrator and forward processed packets toward an appropriate one of the ingress ports or the at least one egress port, each of the forwarding engines having the capability to support data communication over a plurality of the ingress port access sessions;

a distribution engine to perform respective routing searches for each of a plurality of packets received at the at least one egress port, and to distribute each of the packets, along with

respective results of the respective routing search, to a respective one of the forwarding engines supporting data communication for the respective ingress port access session associated with each of the packets, the respective forwarding engine retrieving routing information for each of the packets from a routing table using the respective results; and

a route switch controller to manage the access sessions associated with the ingress ports, wherein the route switch controller comprises a default forwarding engine, each of the other forwarding engines and the distribution engine having the capability to send a packet to the default forwarding engine when the appropriate route for that packet is unknown to the forwarding or distribution engine attempting to route that packet.

Claim 11, line 1, change "claim 10" to --- claim 9 ---.

Claim 13, line 3, change "the access server" to --- the access concentrator ---.

Claim 13, line 4, change "the access server" to --- the access concentrator ---.

14. (Currently presented) A data network access concentrator comprising:

data packet communication means for interfacing with a packet data network;

multiple network access means for communicating data associated with a plurality of network access sessions across an access network;

multiple forwarding means for processing data packets and then forwarding those data packets toward either the data packet communication means, for ingress packets, or toward one of the network access means, for egress packets, each forwarding means associable with multiple

network access sessions and at least one network access means, and performing data packet processing and forwarding related to those associations; and

distributing means for performing a routing search for a data packet received from the packet data network, and for distributing that data packet, along with a result of the routing search, to a respective one of the forwarding means responsible for processing that packet, the respective forwarding means enabled to use the result of the routing search to retrieve information from a routing table;

a route switch controller to manage the access sessions associated with the ingress ports, wherein the route switch controller comprises a default forwarding engine, each of the other forwarding engines and the distribution engine having the capability to send a packet to the default forwarding engine when the appropriate route for that packet is unknown to the forwarding or distribution engine attempting to route that packet.

Claim 15, line 1, change "An apparatus comprising a computer-readable medium" to ---
A computer readable non-volatile medium ---.

Claim 15, line 12, change "the second processor retrieving routing information for the received packet" to --- retrieving routing information for the received packet in the second processor ---.

Claim 16, line 1, change "The apparatus of claim 15" to --- The computer readable non-volatile medium of claim 15 ---.

Claim 17, line 1, change “The apparatus of claim 15” to --- The computer readable non-volatile medium of claim 15 ---.

Claim 18, line 1, change “The apparatus of claim 17” to --- The computer readable non-volatile medium of claim 17 ---.

Claim 19, line 1, change “The apparatus of claim 15” to --- The computer readable non-volatile medium of claim 15 ---.

Claim 20, line 1, change “The apparatus of claim 19” to --- The computer readable non-volatile medium of claim 19 ---.

Claim 21, line 1, change “The apparatus of claim 15” to --- The computer readable non-volatile medium of claim 15 ---.

Claim 22, line 1, change “The apparatus of claim 15” to --- The computer readable non-volatile medium of claim 15 ---.

Claim 22, line 1, change “the routing table identifier” to --- the routing table lookup ---.

Claim 22, line 2, change “the” to --- an ---.

Reason for Allowance

2. The following is a statement of reasons for the indication of allowable subject matter:

Regarding claims 1-8, and 15-24, the prior art fails to teach or suggest a method of operating a network access server, the method comprising the steps of determining, from the results of the routing table lookup, a forwarding tag, a second processor responsible for processing and forwarding the received packet, and a switch fabric stream ID for passing the received packet to the second processor, the second processor selected from a plurality of

forwarding processors in the network access server; passing the forwarding tag and the received packet to the second processor; and in the second processor, retrieving routing information for the received packet from a forwarding routing table, using the forwarding tag to access the routing information in the forwarding routing table, in combination with other limitations, as specified in the independent claims 1, and 15.

Regarding claims 9, 11, 13-14, and 25-27, the prior art fails to teach or suggest a data network access concentrator comprising a route switch controller to manage the access sessions associated with the ingress ports, wherein the route switch controller comprises a default forwarding engine, each of the other forwarding engines and the distribution engine having the capability to send a packet to the default forwarding engine when the appropriate route for that packet is unknown to the forwarding or distribution engine attempting to route that packet, in combination with other limitations, as specified in the independent claims 9, and 14.

3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Ho whose telephone number is (571) 272-3147. The examiner can normally be reached on Monday through Thursday from 7:30 am to 6:00 pm.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jay Patel, can be reached on (571) 272-2988.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (571) 272-2600.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

5. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Patent Examiner

/DUC C HO/

Primary Examiner, Art Unit 2419

5-28-09